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MISCELLANEOUS.

The Ethmoid in Nasal Disease.

BY W. E McVEY, B.S., M.D., TOPEKA.

Professor of Rhinology, Laryngology and Diseases of the Chest, Kansas Medical College.

Read before the Kansas Medical Society, at Topeka, May 16, 1895.

Head pains, both frontal and occipital, deep-seated eye pains with photophobia and lacrymation; general nervous disturbances with asthmatic symptoms such as we find in hay-fever and frequently mental disturbances, incapacity for business, sleeplessness, loss of memory, etc., are conditions which we frequently find accompanying certain forms of nasal disease. Such grave disturbances can hardly be attributed to such conditions, as hypertrophic rhinitis deflections of the septum or pressure by spurs or other deformities, yet it is only of recent date that any better reasons have been advanced for the occurrence of these disturbances.

Spurs most frequently occur in the lower meatus, and where they cause a pressure it is by impinging upon the lower turbinate. Although this a very common condition, we do not find it frequently accompanied by these grave disturbances we have mentioned.

Marked deflections of the septum, perhaps entirely occluding one nasal passage, frequently exist for years without causing either asthmatic symptoms or headache. I think it also very commonly observed that these disturbances do appear where there is apparently only an acute rhinitis with none of these deformities.

From our knowledge of the anatomical structure of the nose we would hardly suppose that either an acute or chronic inflammation of the nasal mucous membrane alone would be sufficient cause. There is a condition, an enlargement of the middle turbinate, which is of almost constant occurance in these cases, and at one time I was led to believe the middle turbinate was an important factor in producing these symptoms by pressure upon the upper and more sensitive portion of the septum. Further investigations, however, proved conclusively to me that if the middle turbinate is the cause it is not by pressure upon the septum, for I found these symptoms in a very exaggerated form in cases where though the turbinate was enlarged there was sufficient space between it and the septum to preclude the possibility of pressure.

As is well known, the middle turbinate is a part of the ethmoid bone, and by examining this specimen you will see that in some cases at least the ethmoid cells are continued into the turbinate bone. These cells are lined with mucous membrane which is continuous with the lining membrane of the nose, and the nasal opening is situated in the middle meatus over which hangs the middle turbinate in such position that by enlargement or swelling this opening may be occluded.

All the cavities accessory to the nose being lined by a continuation of the mucous membrane of the nasal cavities proper, it is not unlikely that these cavities are frequently involved in catarrhal inflammations of the nose. Thus we may easily account for the usual headache, dullness and sense of fullness accompanying acute rhinitis. If the nasal openings of these sinuses remain patulous, such inflammation usually sub-

sides with the nasal trouble. If, however, one of these openings be closed, as is likely to occur with that of the ethmoid cells when the middle turbinate is hypertrophied, free drainage is prevented and we have a subacute or chronic inflammation and retention. This retention causing pressure produces pain in the head and many of the symptoms we have mentioned. When the cells extend into the middle turbinate bone there is rapid enlargement of this body.

To illustrate I will report to you three cases: The first case was a man 50 years of age whom I had been treating for a chronic pharyngitis. At the commencement of the treatment there were no evidences of nasal trouble. A few months after I first saw him he complained of constant frontal headache and intraocular pressure. I found now an hypertrophic appearance of the middle turbinate, and removed the hypertrophied tissue with a wire snare relieving any pressure there was upon the septum. The symptoms were not relieved and in two weeks there was a marked increase of the enlargement which now had a hard bony resistance. The headache had grown much worse and he complained now of severe pain in the back of the head and neck, sleeplessness and almost complete loss of memory. The enlarged turbinate bone was crushed with the wire snare and removed in pieces, which were very thin and hard. There was a profuse discharge of fluid or mucus from the cavity. Relief was immediate and permanent.

The second case was a man 45 years of age who stopped here on his way from Colorado, where he had been for the relief of asthma. He had had repeated attacks of asthma for several years. I found a very much enlarged middle turbinate with hard bony resistance and which had produced a marked deviation of the septum. I removed a part of the growth with a nasal saw and found it to be hollow. I directed him to use frequent douches of hot water and when I saw him about four weeks later, though the septum had receded sufficiently to produce some pressure he was free from his asthmatic symptoms.

The third case was a lady whom I had under treatment for hay fever. The nose had been repeatedly cauterized and though there was no marked intranasal pressure, the symptoms grew rapidly worse. Pain, frontal and occipital, was intense. There were rigors and elevation of temperature. Patient complained greatly of pain in the top of the head and back of the neck, and at times the head was drawn back. Cocaine in the nose gave no relief and opiates only partially controlled the pain. A careful study of this case led me to believe that I an ethmoid trouble to deal with, though there was no protrusion of the eyes and no purulent discharge into the nose, as described in most text books. After thoroughly douching the nose with hot water and cocainizing I sawed through the body of the middle turbinate and opened into a cavity from which was discharged some very dark blood clots and a quantity of fluid. From the appearance of the clots and the fact that the nose had been thoroughly washed out before the operation I can account for them in no other way than that there had been some hemorrhage into the ethmoid cells, and the clots retained there. After the operation the symptoms were greatly relieved and only reappeared when the opening became closed. The wound was frequently donched with hot water and occasionally opened up. There was steady improvement, and when I last saw the case there had been no return of symptoms.

A few months after my experience with this case I noticed an article by Dr. Bosworth, in the *Medical Record* of October 13, 1894, from which I quote the following:

"I regard ethmoidal disease as not only by far the most frequent of all diseases of the accessory cavities, but as of very much more frequent occurrence than we ordinarily have been taught to believe, as will be inferred by the statement that in the past five years ninety-eight such cases have come under observation in my private practice. In the chapter on acute rhinitis, in all of our text books on throat diseases, Bosworth among others, there is described a disease characterized often by nasal stenosis, frontal

headache, intra-orbital pressure, asthenopia, watery discharge and violent sneezing, which I very frankly confess I have rarely seen where I was enabled to detect a rational explanation of the symptoms in the morbid condition of the nasal mucous membrane alone, as seen by ocular inspection. I contented myself with the old teaching that these symptoms were to an extent reflex in character. I do not hesitate to say that I believes a very large proportion of the cases of so-called acute rhinitis are really instances of acute ethmoiditis, and that such inflammation as may exist in the nasal mucous membrane is really secondary to the graver and more distressing conditions of the lining membrane of the ethmoidal cells.

"An acute inflammatory process of the mucous membrane lining these cells very soon either results in resolution or a chronic morbid process. Owing to the peculiar anatomical character of this membrane, a chronic inflammation tends to develop a soft, jelly-like thickening of the tissue, which takes on what we may describe as a myxomatous character. Now, this may persist for a somewhat prolonged period of time, giving rise to distension of the cells, with its train of symptoms already alluded to, which are watery or muco purulent discharges, violent attacks of sneezing, headache, intra-orbital pressure, aprosexia, etc., and if the constitutional habit be neurotic, hay fever, and asthma."

I am firmly convinced from the similarity of symptoms in these cases, which were evidently ethmoidal disease, to the ordinary symptoms of hay fever, that in these pathological conditions of the ethmoid cells we will be able to locate the causative factor of those conditions to we have given the name of hay fever, or, as Bosworth has termed it, vaso motor rhinitis. In many cases the occlusion of the ostium ethmoidalis is caused by the hypertrophied tissue of the turbinate and removal of this tissue frees the opening and promotes drainage. In other cases a removal of the middle turbinate entire uncaps the cells and thus drainage is secured, but in each of the cases I have reported to you the middle turbinate was simply an extension of the cells and opening into it answered the same purpose as removal.

Electricity.

Editor Kansas Medical Journal.

In your issue of May 25th, page 285, are some instructions or notes regarding the application of electricity that seem to be very indefinite. In locomotar ataxia, or in fact any trouble involving cord, we would not only apply anode over the cervical region, but would make it diffusive by using a large electrode and stroke spine with small negative electrode, finishing by placing feet in salt bath and placing negative electrode in the water, using as strong a current as could be borne without suffering to patient. This should be the galvanic, or it and faradic combined, always finishing with galvanic alone. In the lumbagoes use a large positive over the stomach and bowels and stroke spine full length with small negative galvanic, and saturating it towards the last with chloroform, finishing with large positive over lumbar region and feet in bath, as before described. We never saw a lumbago fail to yield yet in this way, and three applications, one each twenty-four hours, usually affords complete relief; but galvanic always, not faridization, here. In central galvanization the greatest care should be used. And it seems to me the positive small about the head, with large negative over the stomach, always should be the pole of election. We believe this a potent method for good when carefully used, but a dangerous method if carelessness is allowed to play any part. But in hemphlegia we would use large electro positive over some large plexus on affected side with negative small over opposite side of head, over the locality that cerebral localization would point out as the place of exudation, or clot. We would finish by placing electro positive large over nearest large nerve plexus to the brain and stroke affected limbs to extremities with electro negative small. The istructions for neural-

gia seem to me wrong for several reasons. One is, that we have found the superficial neuralgia yield to positive faradization over pain with large electro negative over cervical or dorsal region, or over the epigastrium, and the lumbagoes, we believe, always call for galvanism and the use of chloroform or other anodynes used in current. Again, we are not very favorably impressed with interruptions in galvanic current when used about the head. Also, when faradic used about the cranium, we would suggest always using the long fine wire for the best sedative effect. We believe it is best to get a good machine and one that you can get all of the different combinations of the galvanic and faradic currents, like the McIntosh Cabinet battery or other makes of that style of machine, and then the operator can use what he wants, and generally he will find that his success becomes greater as he secures improved instructions, like the man who starts with a flail and works now with a new threshing separator. It is the cheapest in the long run, and your patients will increase in numbers when your people find out you have the instruments to work with and know how to use them. A man would not employ a blacksmith to fix his watch; for he would not have suitable tools, and would not know how to use them in that class of work even if he had them. Many fail with electricity from a mistake in use of current. We know of one physician pronouncing electrical work a fraud because he failed to enter and dilate a stricture, but when questioned closely, he had used a little, short coarse wire faradic battery! Another failed to secure dilatation of the cervix with the positive pole in the canal, and therefore it was a humbug! Another failed because he could not reduce a tumor by using a small static machine! In conclusion, we believe that electricity is now, and will become more so, the greatest agent to relieve pain and control certain elements in disease, that the physician can bring to his aid, especially in the field of nervous troubles to which the race is subject and the more it is used the less blood will be shed, and the more full drug bottles will be found on the pharmacist's shelves.

Respectfully,

JOSEPH HAIGH, M.D.

Wetmore, Kas., June 7, 1895.

"THE meanest man I know of lives in Kansas," said a St. Louis physician. "He is a farmer, worth a cool hundred thousand. His wife was taken suddenly ill, and he came to town to consult me about her case. I told him that I could not prescribe intelligently without seeing the patient, but he declined to incur the expense of a visit. I charged him $1 for the prescription, and he spent half an hour trying to beat me down to 90 cents. He made me write the prescription in English, then bought the drugs and compounded it himself to save the apothecary's fee. One of the ingredients was capsicum. He thought he had some at home, but was mistaken, and had to come back to town, a distance of four miles, for it. By this time he had succeeded in saving about 20 cents, and wasting $2 worth of time, his wife was dead and the medicine a loss on his hands. That so bore on him that he fell ill. He took the medicine prepared for his wife, but that only aggravated his malady. When he finally recovered he sued me for $10,000, and was beaten and had to pay costs. He then went before the Grand Jury and tried to have me indicted for malpractice." This man is about on a par with the fellow who takes a medical journal for several years, and when asked to pay for it drops it back in the office and has it marked "refused."—*Times and Register.*

BY indicting a faith curist who is said to be responsible for the death of one or more persons, the Mt. Holly Grand Jury has taken a step in the right direction. It is time something should be done to discourage a practice which has resulted in the loss of many lives. Faith curists should at least be compelled to confine their experiments to themselves.—*Times and Register.*

WANTED.—A set of Reference Hand Book. Any one having a set and wishing to dispose of it, address this office.

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W. E. McVEY, B.S., M.D., EDITOR.

COLLABORATORS:
J. E. MINNEY, A.M., M.D., Topeka, Kas.
S. G. STEWART, M.D., Topeka, Kas.
J. C. McCLINTOCK, A.M., M.D., Topeka, Kas.
M. B. WARD, A.M., M.D., Topeka, Kas.
W. S. LINDSAY, M.D., Topeka, Kas.
GEORGE EMERSON, M.D., Winfield, Kas.

Topeka, Kansas, Saturday, June 15, 1895.

The Four-Year Course.

Nothing which has occurred during the past ten years more definitely indicated the advancement of the science of medicine than the adoption of the four-year course. It has not been the result of any individual movement, but it has come from necessity. There is more to teach and consequently more time is required in which to treat it. The profession, the student and the public demand a more thorough preparation of the man who is to deal with human life. There should be no hesitancy on the part of colleges in making the full requirement. The number of students may be diminished, but the quality of the graduates will be so vastly improved that the credit of the institution must be somewhat enhanced. A student who refuses to come up to the highest standard of requirement can be but little credit to the college which graduates him or to the profession which he enters. In the competition for students it is a question if the short-time schools will not reap the greater harvest. But we believe the influence of the profession (and usually the student follows the advice of his preceptor) will be in favor of the four-year schools.

Location Permanent.

It seems that the most important business that occupied the attention of the State meeting was to revise the Constitution so as to hold all meetings hereafter at Topeka. Some three or four years ago, we believe, it was decided that Topeka should have every alternate meeting. There is an old saying, "Give some people an inch and they will take a mile." This, we think, will apply very appropriately to our Topeka friends—they are not content with half but must have it all—and they evidently believe in the saying, "Get all you can, and keep all you get." This is all right for Topeka, but rather hard for other first-class cities. We have other places that have as many railroads and other accommodations equal to Topeka that would be pleased and feel highly honored to entertain the physicians of the State Medical Society. There are cities that should have this right—it is due them. But so many queer things have happened at Topeka within the last three years that we have ceased to be surprised at anything that happens there. There is one thing for which the physicians of Topeka are noted, and we must confess that it is a good fault and one which we certainly admire, and that is nerve.—*Western Medical Journal.*

We hope the sentiment expressed in this editorial is not felt by the majority of the members of the Society. We think we speak for most of the physicians in Topeka who are members of the Society when we say that no selfish motive was manifest in this change. The local physicians were no

more active in securing this resolution than were a great many others who are regular attendants of the Society. As a matter of convenience it is a wise change. Topeka is really the only city in the state that can be easily reached from all sections. It might have been better to hold the meetings in different sections each year, but the history of such meetings shows that the attendance averages about one half the attendance at Topeka. We regret that any blame should attach to our local physicians, and yet if faithful attandance and interest is entitled to any consideration it would not be unfair to give Topeka the annual meetings. At the Fort Scott meeting there were more Topeka men in attendance than Fort Scott men, and at the Atchison meeting the Topeka physicians outnumbered the Atchison two to one. While Brother Carver is admiring the "nerve" of Topeka physicians he might also admire that loyalty to the profession and interest in medical progress which takes them from home and business to attend the Kansas Medical Society no matter in what part of the State it meets.

IT is strange what vast confidence can be gained by men who are remarkable only for the absurdity of their claims and the impossibility of their promises. People have been known to sell their last pig or mortgage the cow which was the only dependence of sickly babes in order to get a fee for some unscrupulous adventurer who claimed to be a direct descendant of Jesus Christ, and to have inherited divine powers of healing from the fountain head. Impostors have made enormous wealth in some of our largest and most cultured cities, when even a very little investigation would have revealed an identity and a history repulsive to the lowest criminal. Men trust their wives in the hands of traveling physicians of whom they know nothing further than the fraudulent claims boldly advertised in the daily newspapers. The old practitioner sits in his office, watching patient after patient whom he has treated for years, as they file into the office of the great healer across the street. He knows that the money which he earned over and over again is being turned into the pocket of the avaricious quack. He knows also that in a few weeks at most he will again be called to begin his work all over again, and with no pay for his time wasted or his service done. It is the same old story but with new phases, for at one time it is the divine healer, another time some great surgical wonder, and again the all around quack. They are all overflowing with the milk of human kindness, their vast knowledge is only equaled by their charity—to themselves. If the existence of these evils in any way affects the legitimate practice of medicine, it is possibly as much of a benefit as a detriment. As an offset to the good patients which he loses he is able for a time at least to dispose of many of those chronic incurable burdens with which every practitioner is forcibly ladened. Again, many of the paying patients whom he has by perseverance and constant attention started on the road to recovery, will, after a spell of the quack fascination, return to him for a renewal of the treatment he had almost completed. It is a generally recognized fact that in spite of the number of formidable antagonists to all forms of disease who visit every locality, disease still exists, and the number of patients after their departure has increased rather than diminished.

THE Sioux City Medical College requires that a candidate for graduation shall submit to an examination before a committee from the regular profession of Iowa, Nebraska and Dakota. This is doubtless a good ruling could all prejudice and partiality be eliminated from such a board. We believe, however. that a professor who has devoted years of his life to studying and teaching a certain branch or department of medicine, is not only a more capable examiner, but is more likely to be fair and impartial in his examination than a physician selected without regard to his experience in college work.

THE evanescence of the Keeley hallucination will leave no traces of its existence other than a few physical wrecks and such unpleasant memories as may exist in the minds of those who proved by experience its inefficiency for good. It was an iridescent dream. It gave hope to thousands of victims of their own frailty, it brought cheer and love and luxury again into miserable unfortunate families, but the dream was so short and the awakening so much more terrible than they had before realized, that love lost its ardor and want deprived it of life. There is only one true hope and that is based upon energy of character. The victim of vice who hopes for reform has only his own energy and integrity to bring him safely through. Without this, the agency of drugs and restraint, the influence of his friends or his family, avail him nothing more than did the iridescent dream of Keeleyism.

The Influence of Ether on the Kidneys.

From Proceedings of American Surgical Association in Medical Record.

The second paper under the general subject was by Dr. Robert F. Weir, of New York. He first referred to a publication made by himself on the subject in 1890, in which the statistics of forty cases were analyzed, whose kidneys were proved to have been healthy before the administration of the ether, and in which their subsequent condition had been examined into. The result had been to find a trace of albumin after the ether narcosis in twenty-five per cent. of the cases, but of temporary character. Feuter had reported the results of examinations in 150 clinical cases and of experiments on thirteen animals, with the conclusions:

1. That ether narcosis produced no perceptible effect on the healthy kidneys in man or in animals.

2. It is not dangerous in health nor when the kidneys are only slightly diseased.

3. Any effects it may produce on the kidneys are very transient.

Since ether has come to be extensively employed as an anæsthetic in England greater opportunities of comparison of its fatality with that of chloroform are afforded than formerly were possible. One investigator has found in ether narcosis, among 350,000 cases, 25 deaths, or a mortality of 1 in every 14,000; while in 134,000 cases of chloroform narcosis there were 46 deaths, or a mortality of 1 in every 3,000 cases. Buller, in 500 cases, after ether narcosis, in persons with previously healthy kidneys, found albumin once. Korte found 5 in 600 cases, under similar circumstances. He asserts very positively that ether does not, but that chloroform does, irritate the kidneys. Garre says that in slight kidney disease ether provokes no important change, and is very positive in this assertion. Wunderlich gives an exhaustive *resume* of the subject, and states in conclusion that in existing disease of the kidneys ether frequently augments the disease, but that it is better in this respect than chloroform, two to one, and that casts are found more frequently in the urine as the result of chloroform narcosis than in that of ether. He also says that ether nephritis is capable of being originally excited. Wood does not agree with him altogether. This experimenter, in fifteen animals, found no ether after narcosis in the urine, but did find the epithelium swollen and the kidneys congested. This, according to his view, was caused by some retrograde change in the ether. His conclusions, notwithstanding, are that ether produces no effect in health on the kidneys, but augments disease when previously present. Feuter has demonstrated that the kidneys of the animals are much more sensitive to ether than those of man. Bruns has shown that the effect of ether and chloroform on the lungs and kidneys are due to their oxidation and formation of aldehyde and other products of decomposition, caused by exposure of these agents to light and possible admixture with air in partially filled bottles. He advises, in order to prevent these changes taking place, to store them in small, perfectly filled,

and hermetically sealed flasks, to be kept in a cool place, impervious to light. These conditions, as we know, are fulfilled by Squibb in this country. He shows that under ether narcosis the temperature falls seven-tenths; under chloroform it is unaffected. Ether causes vaso-motor dilatation; chloroform, contraction. According to Fayer and Wright coagulation of albumin in the small vessels and capillaries is induced by imperfect oxidation. This may throw light on the cause of asphyxiation by ether.

Nuclein and Protonuclein.

Medical Record.

Dr. T. O. Sommers, of New York City, read this paper before the meeting of the American Medical Association, at Baltimore, Md., May 10, in which the principal points made were as follows:

1. The first step in the direction of physiological therapy was taken when the leucocyte was found to be a perfect cell with cell-walls, nucleus, and nucleolus. This established it as a vital unit of the organism and referred its origin to the involution of germinal potentiality existing in the original impregnated ovum, and being evoluted through the regular process of segmentation as are all the other elementary tissues of the organism.

2. The second step was taken when the leucocyte was proved identical with the lymph-corpuscle, and even was shown to be the original corpuscle from which the so-called pus-corpuscles were formed under pathological influence.

3. The third step was the proof of the distributing power of the white blood-corpuscles. It is proved that the proteids formed in the digestive tract are all taken up by the leucocyte, many of them, the mono-nuclear variety, possessing but little blastema and capable of appropriating but little of tissue pabulum. It is in the multinuclear or polynuclear cells that the great change takes place, converting the proteids by mixture with the cell-blastema of the polynuclear leucocyte, under the molecular influence of the nucleus, into the assimiliable tissue pabulum which we now recognize as nuclein.

4. When this nucleized pabulum is received by the individual tissue-cell of the several structures of the body, it is then that it passes through that remarkable metabolism or metamorphosis which makes lifeless material again vital and active in physiological function. To this, which is the form of nuclein extracted for therapeutic purposes, the name of protonuclein is given, after the analogy of Professor Huxley's protoplasm which represents the "physical basis of life."

5. This protonuclein is found to be not only a tissue-builder but a direct antitoxic. Indeed, experiments have proved it to be the normal antitoxin of the body, because unless there was some provision made to resist the toxic agents which are introduced every moment into the organism, we would, to use a Pauline expression, "die daily." Its phagocytic action is also clearly shown by the accompanying micro-photograps, taken instantaneously—*i. e.*, in one-half second.

6. The practical demonstration of protonuclein power has been established in hundreds of cases already. Carcinoma, pernicious anæmia, tuberculosis, tonsillitis, cachectic fevers, diphtheria, and other allied disorders of the organism have yielded to its action very promptly, to the great surprise of some of the best clinicians of the land. It has been used with great effect as a tissue-builder in the most typical asthenia and marasmus cases. It is hard, indeed, to limit the therapeutic effect of protonuclein, as will be readily seen by observing the principle upon which its therapeutic effect is based.

7. In the extraction of protonuclein from the lymphoid structures of the body no chemicals are used, nothing but purely physiological methods being applied. The cellular activity is quickly observed with a one-fifth objective by mixing a drop of the blood with supernatant fluid prepared by adding one drachm of water to three grains of protonuclein. Let this stand a few

minutes before adding a drop of it to the freshly drawn blood. A most beautiful physiological panorama is exhibited.

8. Protonuclein is prepared in tablets. Powder may also be used as directed hypodermically. It is proved to be a powerful prophylactic as well as a direct antitoxic, the latter effects extending to all zymotic diseases. It will keep indefinitely, being enveloped in benzoin and milk-sugar, preserving its potential activity just as a grain of corn is preserved by its environment.

9. Protonuclein is indicated in any form of disease where the organism is in a low asthenic condition, or in all zymotic or inflammatory conditions, or wherever there are toxic germs to be destroyed.

A Specific Reaction for Tuberculous Sputum.

Dr. Roerig in Aerzt. Runds.

To 30 gme. of a sputum (daily quantity 160 gme.), in which large numbers of tubercle bacilli has been found, the author added 30 gme. of distilled water, in which 1 gme. of starch had been boiled After shaking well, the mixture was placed upon a water-bath at 37° C. The sputum lost its tenacious character and assumed a pea-soup consistency. After four hours it was again well shaken, and a sample taken, to which a few drops of a dilute solution of iodine were added. No blue color appeared, as it should have done if starch were still present in the mixture. At the beginning of the experiment and before heating, an intense blue color occurred upon addition of iodine. The starch, therefore, had been destroyed by the sputum. The author's suspicion that sugar might be present was correct, for Fehling's solution showed 0.4 per cent. of sugar.

It was plain that all of the starch had not been transformed into sugar. It may be objected that the sputum, in its passage through the mouth, had carried saliva with it, and this had been the cause of the transformation of the starch. In reply to this objection, the author would say that the patient from whom this sputum was obtained complained of excessive dryness of the mouth—there was no saliva. The mouth had been carefully cleansed beforehand. Further, he took the sputum of ordinary acute and chronic bronchitis (broncho-blennorrhea) and treated this in the same manner, but even after twenty-four hours the starch had not disappeared in any one of the cases. In addition, he took sputum from thirteen patients suffering from lung affections and examined it as to its amylolytic power. All of these thirteen patients were in advanced stages of phthisis, and their sputa were thick, greenish, and rich in tubercle bacilli. The inverting was exceedingly variable in individual cases. While the sputum of one affected but a slight quantity of starch, that of another (in equal amount) was capable of wholly transforming a number of grammes of starch in a period of a few hours.

A piece of a tuberculous beef's lung was repeatedly treated with starch and kept for five hours at 37° C. Originally the lung contained no sugar, but after five hours' warming with starch solution, large quantities of sugar were found in every instance, and the starch was displaced. Likewise, healthy lung tissue was repeatedly covered with starch solution, and treated in the same manner. Here after six hours large amounts of starch were still present, but not a trace of sugar; but when 0.5 cme. of starch was added to 60 cme. of finely chopped healthy lung substance, and the whole diluted until it showed the presence of starch by a dark blue color, and then warmed for five hours, all of the starch disappeared, but no sugar was produced.

According to this, healthy lung tissue is capable of destroying a small amount of starch, but does not change it into sugar, as does tuberculous lung tissue. Since animal starch is present in the white blood-corpuscles, it was to be expected that tuberculous sputum would contain sugar. He examined the sputum every time for sugar, but never found a reducing substance. The inverting substance can be extracted with water, but a substance which, when boiled

with dilute sulphuric acid, reduces Fehling's solution is also separated. Therefore, a substance analogous to glucosides appears to be present in tuberculous sputum.

Two c. c. of sulphuric acid were placed in a test-tube, and some tuberculous sputum, treated as above, and evaporated over a water-bath until it obtained a consistence of a stiff paste, poured upon it. After a few moments a violet ring formed at the point of contact. After gentle shaking, the violet color diffused through the underlying clear sulphuric acid. The color became more intense on standing, and remained unaltered for six days. R. subsequently found that the reaction was more pronounced when a few drops of sodium-carbonate had previously been added; if heat is then applied, the pasty sputum assumes a soupy consistence. This is heated again until pasty. So far as the author's experience goes, this violet reaction occurs only in connection with sputum containing tubercle bacilli—not in catarrhal or pneumonic sputum. The latter two, upon treatment with sulphuric acid, give a red, not violet, reaction. The violet color occurs only in sputum which has been cooled. Heating destroys the color. Pure cultures of the tubercle bacillus also give the color. The sputum used must be fresh.

According to the author, with a little practice a few minutes are all the time needed in which to obtain this violet reaction, and it is always very distinct. Consequently he thinks the practicing physician will find this method more convenient than the tedious search for the tubercle bacillus.

Treatment of Acute Coryza in Nurslings.

La Sem. Med., XVI, 1894, p. 420.

According to Lewy, when acute rhinitis, which may occur in nurslings in summer heat as well as during winter cold, does not lead to such nasal occlusions as to prevent suckling, it needs no treatment. Sometimes, however, treatment is necessary, and the author has seen advantage from the use of terpin hydrate, 5 ctg. being given in children under one year, and 10 ctg. in children above that age. Vaselin should be used freely in all instances to prevent the formation of an eczema of the upper lip, generally a very rebellious lesion when consecutive to a coryza. As the nasal mucus in this affection has an alkaline reaction, it is well to incorporate a little boric or salicylic acid into the vaselin.

Where the obstruction from swelling of the nasal mucosa is so severe as to actually interfere with nursing, it is well to restore nasal potency with the use, on a cotton swab, of a 5 per cent. solution of cocaine; but this necessitates the constant attention of the physician. A simpler and yet efficacious way is to introduce into the nostrils small cotton cylinders dipped in a 1 per cent. cocaine solution and then compress the sides of the nose. The liquid in thus brought in contact with the turbinated bones, and, at the same time, the head being depressed, it naturally escapes, so that none is swallowed.

As an adjuvant to the foregoing, insufflations may be made of a powder, to be used at each nursing, of cocaine and menthol, of each 10 ctg. Sugar of milk, 10 grn.; a pinch to be used each time.

Finally, in cases of purulent rhinitis, we should irrigate with tepid (non-saline) water, and insufflate as before a pinch of the following:

Silver Nitrate	1 grn.
Powdered Talc	20 grn.

(Stearate of zinc may replace the talc in this instance.—Abstr.)

The External Application of Pilocarpin in Nephritis.

Maryland Medical Journal.

Molliere (*British Medical Journal*) advocates the treatment of the various forms of Bright's disease by the inunction into the skin of the trunk of a dilute ointment of nitrate pilocarpin. This method of administering pilocarpin was first suggested and applied, chiefly for affections of the

joints, by the author's brother, Daniel Molliere, in 1882. He believed that he in this way secured a purely local diaphoresis with a minimum dose of the alkaloid, and without the inconveniences and dangers (collapse, etc.) which sometimes attend its subcutaneous injection. The *modus operandi* in cases of Bright's disease is as follows:

An ointment is made of nitrate of pilocarpin with white vaselin 1 in 1000 or 2000. About ℥ iij of this is rubbed into the skin over the whole of the trunk, which is then enveloped in a thick layer of cotton, wool and waxed linen, the whole maintained in place by bandages. This "carapace" may be left on for several hours, or even until the reapplication of the dressing on the following day. In ordinary cases this treatment may be repeated daily for ten to fifteen days.

Molliere finds the results of this treatment exceedingly satisfactory, even when, as in his later cases, the usual restriction of diet and other routine treatment have not been combined with the inunction. In acute cases threatened uremia is averted, and the dyspnea is relieved; there is profuse diaphoresis and salivation, increase in the amount of urine, and diminution of albumen, and a rapid disappearance of anasarca. The cure is rapid and complete. In chronic cases he claims that it produces greater alleviation of symptoms and prolongation of life than any other remedy.

Enlarged Prostate.

Toledo Medical Compend.

Physicians often come in contact with old men who suffer from enlarged prostate. There is difficulty in urinating, and the patient has been in the habit of drawing his own urine with a catheter. His attempts have been futile, and he has lacerated the urethra to bleeding. Now he is in great distress. The urethral tenesmus is terrible. An olive-shaped woven catheter in the hands of a good manipulator soon relieves the distended bladder, but the tenesmus continues, and the patient insists on the introduction of the catheter every half, one or two hours. Now, it is a well-known fact that urine cannot collect in so short a time in volume sufficient to distend the bladder to produce this desire for urination. What then is to be done? Let the bladder alone for six hours. Order that no catheter be introduced for this length of time at least. Seek to allay the urethral tenesmus in another way. Now is the time to use rectal suppositories:

℞ Opii pulvis.....gr. vj
Camphor pulvis.....gr. xij
Extract belladonna.....gr. iv
Cocoa butter.....q. s
Fiat suppositories, No. 6.

One of these to be introduced into the rectum, and have the patient take the recumbent position. One of these will usually allay all anxiety. Draw the urine off every six or eight hours carefully. After the above effects have subsided, good results follow the nightly use of the following rectal suppositories:

℞
Carbo-ligni.....drams ij
Gallic acid.....dram j
Extract hamamelis.....dram j
Mixed.

The patient is given the hollow rectal suppositories No. 2 and shown how to fill them. One to be inserted every evening, or perhaps morning and evening. Five grains of Salol is to be taken three times a day. In a few days the patient will be able, in most cases, to void his urine without the use of the instrument, and by care and avoidance of catching cold will be rendered easy and happy.

An Iniquitous Law

Medical Sentinel.

Probably few physicians in the State of Oregon know what the law is regarding the use of narcotics. A clause in the laws of the State provides that every physician who shall use or prescribe any opium, morphine or other narcotic for any patient, shall enter in a book kept for such purpose, a full record thereof. Such record shall

state the name of the patient, the amount of drug used or prescribed, and the name of the disease for which the same was used. Not only this, but such record shall be open for the inspection of the public. Again, it is provided that any physician who shall use or prescribe any narcotic, shall first procure from the County Court a license to dispense and prescribe the same.

It is unlawful to administer a hypodermic injection of morphine, or in any other manner use or prescribe any narcotic within the State of Oregon, unless a certificate has been first procured, and a full public record must be kept, open to the public, of each and every act of such character performed by every physician practicing in the State.

The fact that the law is several years old and had never been brought before the minds of the profession until a physician in this city was recently prosecuted thereunder, evidences what a dead letter it is. It is safe to say that if Oregon courts should attempt to force physicians to disclose professional secrets, which this law provides shall be done, Oregon jails would be full of Oregon doctors. The law needs amendment when the legislature shall next meet.

The Treatment of Pleuritic Effusions.

Medical Times and Circular.

When paracentesis thorasis by aspiration was first introduced, antiseptic surgery was unknown, and it is, therefore, no matter of surprise that a method which gave such brilliant results as compared with the methods then in vogue for the relief of recurrent effusions should have forthwith attained a considerable measure of popularity. Although from an antiseptic point of view aspiration constituted an immense improvement on alternative procedures, it was soon found that in the hands of careless surgeons the conversion of a simple serous into a purulent effusion not unfrequently followed repeated paracentesis, and so it gradually came to pass that a rule was formulated—a rule which still maintains its ground in the current text-books—in virtue whereof paracentesis was disadvised in the event of the effusion recurring after two or three aspirations. During the last few years, however, considerable advances have been made in this department of surgery, and it is now formally admitted that the conversion of a simple pleuritic effusion into an empyema is the fault of the operator. The fact that it has been found possible to empty the chest by means of the aspirator as many as thirty-seven times without inducing any such change may be taken as evidence that, with ordinary precautions, no risk of sepsis need be incurred. It follows as a logical sequence that it can never be justifiable to open the chest in such cases so long as the effusion preserves its serous character. At the last meeting of the Medical Society of London, Dr. S. West related a case in which, after performing paracentesis thirty-seven times in a case of recurring pleuritic effusion, he felt compelled, by the inability of the patient's friends to incur the expense of any further prolongation of the treatment in town, to consent, though with grave misgivings, to the chest being opened. The result fully justified his misgivings, for the patient, though she ultimately made a good recovery, passed through a very critical period, during which her life was in the balance. In criticising such a case one is tempted to remark that the reason assigned for consenting to an operation, which was recognized to be fraught with the gravest risk to the patient, was hardly one that would commend itself to the average reader. Paracentesis is such a simple operation that it is not easy to conceive of any valid reason why this method should not have been persisted in, even though it might have had to be performed by the country practitioner who originally had charge of the case. The fact remains that, although the patient survived the ordeal, the history of the case reinforces the moral that opening the chest under such circumstances is an utterly unjustifiable operation.

Argon—The New Element.

The National Board of Health, May.

The discovery of an unsuspected constituent in the atmosphere has been followed by investigations that make absolutely indisputable the claims of its discoverers. It is now absolutely certain that the atmosphere contains at least one element previously unknown. From the chemical point of view, perhaps, the most startling character of this substance is its inertness—all attempts to induce it to enter into chemical combination having so far proved futile. On the other hand, considering the difficulties attending its preparation and purification, knowledge of its physical properties is already well advanced.

The new gas is obtained by two processes. The first consists in subjecting a mixture of purified air and oxygen to a stream of electric sparks in presence of an alkali, whereby the nitrogen is oxidized and absorbed, the excess of oxygen being afterward removed by treatment with an alkaline solution of pyrogallol. The second process begins with removing the oxygen from purified air by means of red hot copper, and then the removal of the nitrogen is effected by passing the residual gasses over magnesium filings heated to redness. The removal of the last portions of the nitrogen and other impurities is now effected in an ingenious self-acting apparatus, whereby the gas can be kept in circulation over the various purifying agents for any length of time. Usually about two days are required. "Argon," as the new found substance is called, is a colorless gas whose density is about 19.90, compared with hydrogen as unit. It is about two and a half times as soluble in water as nitrogen, 100 volumes of water dissolving 4.05 volumes of argon at 13.9 degrees. The gas can be liquified at a very low temperature. and then forms a colorless liquid, which boils under atmospheric pressure at—187 degrees, the density of the liquid at its boiling point being about 1.5. At a still lower temperature, argon is converted into a crystalline solid resembling ice, which melts at—189.9 degrees, while nitrogen melts at 213 degrees, and boils at 194.4 degrees, and oxygen, which has not yet been solidified, boils at 282.7 degrees, their densities in the liquid state being 0.885 and 1.124 respectively.

Twin Tubal Pregnancy—Retention of Fetus for Fifteen Years.

The Times and Register.

M. Folet, of Lille, communicated to the Academy of Medicine on the 12th inst. details of the above extraordinary case. His patient is a woman now aged 47 years, who, having previously given birth to four children at full term, became sixteen years ago, again pregnant. When the pregnancy had reached the ninth or the tenth months symptoms simulating labor occurred, blood and membranes being expelled, and the hemorrhage persisting for six weeks. This strange occurrence led to the belief that no pregnancy had really existed. The abdomen remained, however, voluminous, but for fifteen years nothing further happened to disturb her until a year ago, when repeated attacks of peritonitis determined her admission into the Saint Sauveur Hospital, Lille, where laparotomy was decided upon. The operation was laborious on account of the presence of numerous adhesions of the fetal sac to the intestines. The sac was, nevertheless, excised almost entire, the too adherent fundus only being left in situ and stitched en collarette to the lower part of the abdominal incision. Recovery was complete in six weeks, no accident having occurred to retard it. The sac contained two fetuses—one which had at its death attained the age of two or three months, and the other which had reached the full term of nine months—phenomenon which is so extremely rare in tubal gestation that only six or seven examples are recorded. The fetus exhibited at the Academy by M. Folet was not a lithopædion. Its tissues were supple, non-calcified, but were, nevertheless, as dense as cooked bacon. With the exception of certain alterations undergone, the tissues had

retained their structure recognizable by the naked eye and under the microscope. The peculiar lardaceous degeneration above mentioned will be further investigated by Dr. Curtis, professor-agrege of Pathological Anatomy at the Lille Faculty.

Hepatic Stimulant.

Stearns' cascara aromatic... 1 fl. oz.
Fl. ext. wahoo..... ¼ fl. oz.
Fl. ext. senna..... ½ fl. oz.
Fl. ext. wild cherry (soluble) ½ fl. oz.
Simple syrup, q. s..... 4 fl. oz.
Mix. Sig.: Dose, 1 to 2 teaspoons.

A combination acting especially on the liver, and of unusually pleasant and effective action. The wild cherry may often be well replaced by hydrocyanic acid in proper doses, thus giving the combination especial value in dyspepsia as manifested in vomiting and gastric distress with constipation.

Renal Complications of Typhoid Fever.

University Medical Magazine.

Roth cites a number of statistics in relation to the frequency of nephritis as a complication of typhoid fever. He mentions the observations of Mygge, who, systematically examining the urine of seventy-two typhoid fever patients, found albumen present in fifty-two. In half of these cases it was due to nephritis, in the other half to pyelitis or to cystitis. He refers particularly to cases in which the renal symptoms may be much more marked than those referable to the gastro-intestinal tract, and cites a case of a boy taken suddenly ill with headache, thirst, fever, and pain in the right loin. On admission, fourth day of the disease, the urine was scanty, dark-red, cloudy, contained considerable albumen, epithelial cells, numerous white-blood corpuscles; no casts. On the eighth day roseola was found; on the ninth day the spleen was palpable; the urine contained albumen and epithelial cells from the pelvis of the kidney; no casts. The disease thus began as a pyelitis, it being only on the eighth day that the diagnosis of typhoid fever could be made. The constant absence of casts argued against nephritis. The patient recovered. Careful examinations will prevent the overlooking of pyelitis occurring during the course of typhoid fever, but in cases beginning as pyelitis the diagnosis may be obscured. Unless absolutely necessary in such cases the cold bath should not be used. During convalescence great care must be exercised regarding the diet, especially in the use of albuminous foods.

Dysmenorrhea with Complications.

D. M. Dunn, M.D., Minneapolis, Kas., says: "I have used your Succus Alterans in a case of dysmenorrhea, complicated with neuralgia of the ovaries and womb. There was also some leucorrhea. This was a case of long standing, where a great deal of trouble was experienced each month. Two months use of the Succus Alterans has entirely relieved the patient and she rejoices greatly."

"I AM using your admirable preparation of pasteurine in all catarrhal conditions of the body wherever seated, and find that it has properties combining the principles of anticepticism, and a most agreeable remedy to use as a detergent in varying proportions. It is in the practice of gynecology that I employ it particularly as an application, pure, on absorbent cotton to eroded, lacerated cervices, and as a douche generally. It is all that is claimed for it, and I shall continue its use and direct the attention of my class to its merits."—C. H. POWELL, A.M., M.D., professor of Physical Diagnosis and Clinical Medicine, Barnes Medical College, St. Louis.

THE office of THE KANSAS MEDICAL JOURNAL has been removed from 723 to 631 Kansas avenue.